

- §2  
Cont
- (a) obtaining a host cell comprising one or more nucleic acid sequences encoding AMV reverse transcriptase; and
  - (b) culturing said host cell under conditions sufficient to produce said AMV reverse transcriptase; and
  - (c) isolating or purifying said reverse transcriptase thereby obtaining an AMV reverse transcriptase having a polymerase specific activity of at least about 30,000 units per milligram.
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Please substitute the following claim 28 for the currently pending claim 28:

- §3
28. (Twice amended) The method of claim 26, wherein said AMV reverse transcriptase comprises at least one subunit selected from the group consisting of one or more  $\alpha$  subunits, one or more  $\beta$  subunits, and one or more  $\beta p4$  subunits, of AMV reverse transcriptase, and fragments or mutants thereof having reverse transcriptase activity.
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Please substitute the following claim 33 for the currently pending claim 33:

- §4
33. (Twice amended) The method of claim 28, wherein subunits of said AMV reverse transcriptase are expressed in said host cell to form said AMV reverse transcriptase.
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Please substitute the following claim 117 for the currently pending claim 117:

117. (Twice amended) The method of claim 28, wherein said subunits are encoded by nucleic acid sequences contained in one or more vectors.

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Please substitute the following claim 118 for the currently pending claim 118:

118. (Twice amended) The method of claim 28, wherein at least one subunit is an  $\alpha$  subunit.

[ Please substitute the following claim 119 for the currently pending claim 119: ]

119. (Twice amended) The method of claim 28, wherein at least one subunit is a  $\beta$  subunit.

[ Please substitute the following claim 120 for the currently pending claim 120: ]

120. (Twice amended) The method of claim 28, wherein at least one subunit is a  $\beta$ p4 subunit.

[ Please substitute the following claim 121 for the currently pending claim 121: ]

121. (Twice amended) The method of claim 28, wherein said subunits are an  $\alpha$  subunit and a  $\beta$  subunit.

15 [ Please substitute the following claim 122 for the currently pending claim 122: ]

122. (Once amended) The method of claim 119, wherein said  $\beta$  subunit forms an AMV reverse transcriptase comprising two  $\beta$  subunits.

[ Please substitute the following claim 123 for the currently pending claim 123: ]

123. (Once amended) The method of claim 121, wherein said  $\alpha$  and  $\beta$  subunits form an AMV reverse transcriptase comprising an  $\alpha$  and a  $\beta$  subunit.

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Please substitute the following claim 127 for the currently pending claim 127:

127. (Three times amended) The method of claim 26, wherein said AMV reverse transcriptase has a polymerase specific activity from about 30,000 units per milligram to about 150,000 units per milligram.

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[ Please substitute the following claim 128 for the currently pending claim 128: ]

128. (Twice amended) The method of claim 26, wherein said AMV reverse transcriptase has a polymerase specific activity from about 35,000 units per milligram to about 150,000 units per milligram.

[ Please substitute the following claim 129 for the currently pending claim 129: ]

129. (Twice amended) The method of claim 26, wherein said AMV reverse transcriptase has a polymerase specific activity from about 40,000 units per milligram to about 150,000 units per milligram.

[ Please substitute the following claim 130 for the currently pending claim 130: ]

130. (Twice amended) The method of claim 26, wherein said AMV reverse transcriptase has a polymerase specific activity from about 45,000 units per milligram to about 150,000 units per milligram.

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[ Please substitute the following claim 131 for the currently pending claim 131: ]

131. (Twice amended) The method of claim 26, wherein said AMV reverse transcriptase has a polymerase specific activity from about 50,000 units per milligram to about 150,000 units per milligram.

[ Please substitute the following claim 132 for the currently pending claim 132: ]

132. (Twice amended) The method of claim 26, wherein said AMV reverse transcriptase has a polymerase specific activity from about 55,000 units per milligram to about 150,000 units per milligram.

[ Please substitute the following claim 133 for the currently pending claim 133: ]

133. (Twice amended) The method of claim 26, wherein said AMV reverse

transcriptase has a polymerase specific activity from about 60,000 units per milligram to about 150,000 units per milligram.

[Please substitute the following claim 134 for the currently pending claim 134:]

134. (Twice amended) The method of claim 26, wherein said AMV reverse transcriptase has a polymerase specific activity from about 65,000 units per milligram to about 150,000 units per milligram.

[Please substitute the following claim 135 for the currently pending claim 135:]

135. (Twice amended) The method of claim 26, wherein said AMV reverse transcriptase has a polymerase specific activity from about 70,000 units per milligram to about 150,000 units per milligram.

[Please substitute the following claim 136 for the currently pending claim 136:]

136. (Once amended) The method of claim 26, wherein said AMV reverse transcriptase has a polymerase specific activity from about 75,000 units per milligram to about 150,000 units per milligram.

[Please substitute the following claim 137 for the currently pending claim 137:]

137. (Once amended) The method of claim 26, wherein said AMV reverse transcriptase has a polymerase specific activity from about 80,000 units per milligram to about 150,000 units per milligram.

[Please substitute the following claim 138 for the currently pending claim 138:]

138. (Once amended) The method of claim 26, wherein said AMV reverse transcriptase has a polymerase specific activity of at least about 35,000 units per milligram.

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cont

[Please substitute the following claim 139 for the currently pending claim 139:]

139. (Once amended) The method of claim 26, wherein said AMV reverse transcriptase has a polymerase specific activity of at least about 40,000 units per milligram.

[Please substitute the following claim 140 for the currently pending claim 140:]

140. (Once amended) The method of claim 26, wherein said AMV reverse transcriptase has a polymerase specific activity of at least about 45,000 units per milligram.

[Please substitute the following claim 141 for the currently pending claim 141:]

141. (Once amended) The method of claim 26, wherein said AMV reverse transcriptase has a polymerase specific activity of at least about 50,000 units per milligram.

36 [Please substitute the following claim 142 for the currently pending claim 142:]

142. (Once amended) The method of claim 26, wherein said AMV reverse transcriptase has a polymerase specific activity of at least about 55,000 units per milligram.

[Please substitute the following claim 143 for the currently pending claim 143:]

143. (Once amended) The method of claim 26, wherein said AMV reverse transcriptase has a polymerase specific activity of at least about 60,000 units per milligram.

[ Please substitute the following claim 144 for the currently pending claim 144: ]

144. (Once amended) The method of claim 26, wherein said AMV reverse transcriptase has a polymerase specific activity of at least about 65,000 units per milligram.

[ Please substitute the following claim 145 for the currently pending claim 145: ]

145. (Once amended) The method of claim 26, wherein said AMV reverse transcriptase has a polymerase specific activity of at least about 70,000 units per milligram.

[ Please substitute the following claim 146 for the currently pending claim 146: ]

146. (Once amended) The method of claim 26, wherein said AMV reverse transcriptase has a polymerase specific activity of at least about 75,000 units per milligram.

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Cont [ Please substitute the following claim 147 for the currently pending claim 147: ]

147. (Once amended) The method of claim 26, wherein said AMV reverse transcriptase has a polymerase specific activity of at least about 80,000 units per milligram.

[ Please substitute the following claim 148 for the currently pending claim 148: ]

148. (Once amended) The method of claim 26, wherein said AMV reverse transcriptase comprises at least one subunit selected from the group consisting of an  $\alpha$  subunit, a  $\beta$  subunit, and a  $\beta p4$  subunit of AMV reverse transcriptase.

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***In the Abstract:***

Please replace the present abstract with the replacement abstract appended hereto.